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Remarks:

Reconsideration of the application is respectfully requested.

Claims 1 - 13 are presently pending in the application. As it is believed that the claims were patentable over the cited art in their original form, the claims have not been amended to overcome the references.

In item 2 of the above-identified Office Action, claims 1 - 13 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U. S. Patent No. 6,608,832 to Forsl w ("FORSL W").

Applicants respectfully traverse the above rejections.

More particularly, Applicants' claim 1 recites, among other limitations:

providing a plurality of first quality of service classes in an application layer for transmitting first data with real-time requirement and a plurality of second quality of service classes in the application layer for transmitting second data without real-time requirement, said first data with real-time requirement being of a different type from said second data without real-time requirement; [emphasis added by Applicants]

Similarly, the preamble to Applicants independent claim 8 recites, among other limitations:

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A communication device for transmitting first data with real-time requirement and second data without real-time requirement, the first data with real-time requirement being of a different type from the second data without real-time requirement, wherein a **plurality of first quality of service classes are provided in an application layer** for transmitting the first data and a **plurality of second quality of service classes are provided in the application layer** for transmitting the second data, the device comprising:

The first and second quality of service classes recited in the preamble of claim 8, are referenced in the body of that claim, and thus, must be given patentable weight. For example, the body of Applicants' independent claim 8 recites, among other limitation:

a processor programmed **to select a combined quality of service class** formed from **the first quality of service classes** for the first data of a first type with real-time requirement and **the second quality of service classes** for the second data of a second type different from said first type, said second data without real-time requirement, in the application layer, each combined quality of service class being allocated transmission parameters specifying a transmission of the first data and the second data; [emphasis added by Applicants]

These quality of service classes, referenced in Applicants' claims, are described in the specification of the instant application, for example, on page 27 of the instant application, line 11 - page 28, line 26, which states:

The following five quality of service classes are allocated to the voice data, that is to say to the first data:

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I. Quality of Service Class 5 (least acceptable quality):

according to the first quality of service class, a communication link is guaranteed which is provided in accordance with the available transmission resources. According to the first quality of service class, delays of the voice signal can occur at the receiver during the transmission of the voice data. With a high network load, delays can occur which lead to the quality of the transmitted voice data being below a usual quality of transmitted voice data in a cellular mobile radio network which is usually guaranteed.

II. Quality of Service Class 4 (low quality):

according to a second quality of service class, a somewhat improved quality of the transmitted voice data is guaranteed.

III. Quality of Service Class 3 (medium quality):

a medium quality of the transmitted voice data is guaranteed according to a third quality of service class, the medium quality essentially corresponding to the quality of a usual wireless mobile radio network. The quality is guaranteed, for example, by means of a communication link via a usual IP communication link.

IV. Quality of Service Class 2 (high quality):

according to a fourth quality of service class, a quality of the voice data to be transmitted is guaranteed which corresponds to that of a usual landline network telephone connection having a slightly delayed, that is to say increased delay of the voice data.

V. Quality of Service Class 1 (maximum quality):

a fifth quality of service class demands the transmission of the voice data in maximum quality which can be guaranteed at all according to the communication network to be used. The quality is at least as good as the quality of a usual landline network telephone link. [emphasis added by Applicants]

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Additionally, page 30 of the instant application, lines 10 - 14, states:

The second data without real-time requirement, that is to say the text data, are also allocated quality of service classes which will be called second quality of service classes in the text which follows. [emphasis added by Applicants]

Further, all of Applicants' claims require, among other limitations, that a **combined** quality of service class be formed from **the first quality of service classes** and the **second quality of service classes**. This combined quality of service class is described in the specification of the instant application, for example, on page 11 of the instant application, line 1 - page 12, line 18, which states:

From the first quality of service classes and the second quality of service classes, combined quality of service classes are formed from which a combined quality of service class is selected and the transmission parameters allocated to the respective selected combined quality of service class are supplied to the unit of the transport layer. The respective quality of service classes can be allocated in each case a priority which specifies the priority with which the respective data are to be transmitted. The combined quality of service classes can be formed as a function of the first priorities and the second priorities which are allocated to the first quality of service classes or, respectively, to the second quality of service classes.

The combined quality of service class can be selected in the following manner:

a) the combined quality of service class which has the first quality of service class with the highest first priority and the second quality of service class with the highest second priority is selected,

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b) a check is made whether a coder to be used can transmit the first data and the second data according to the transmission parameters of the respective combined quality of service class,

c) if this is so, the combined quality of service class is selected,

d) if this is not so, a further combined quality of service class is selected in such a manner that in each case the combined quality of service class with reduced second priority is selected, and

e) steps b) and d) are performed iteratively until the coder can transmit the first data and the second data in accordance with the transmission parameters of the respective combined quality of service class.

As such, in Applicants' claimed invention data of a first type is assigned to one of a plurality of first quality of service classes, while data of a second type is assigned to one of a plurality of a second type of quality of service classes. Applicants' claimed invention then assigns a combined quality of service class to the data for which first and second quality of service classes. As described in the specification above, this combined service class is used to assign priority to the transmission of the data (i.e., the combined transmission of the first and second types of data). This can be seen from the specification of the instant application, for example, page 11, lines 15 - 20, which states:

The combined quality of service class can be selected in the following manner:

a) the combined quality of service class which has the first quality of service class with the highest first

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priority and the second quality of service class with the highest second priority is selected, [emphasis added by Applicants]

Thus, Applicants' claimed "combined quality of service class" relates to the transmission of the first (realtime) type of data with the second (non-realtime) type of data. The above quoted example, clearly sets forth that a priority is set based on the **combined** quality of service class assigned to the data (i.e., data of the first type and data of the second type).

Thus, in Applicants' claimed invention, the first type of data and the second type of data are transmitted together, based on their assigned combined quality of service class.

Additionally, that the data of the first and second types are transmitted **together** is supported in the language of Applicants' claims, themselves. For example, claim 1 recites, among other limitations:

selecting a combined quality of service class formed from the first quality of service classes and the second quality of service classes in the application layer, each combined quality of service class being allocated transmission parameters specifying a transmission of the first data and the second data; and

supplying the first data and the second data and the transmission parameters of the selected combined quality of service class to a unit of a transport layer, and transmitting the first data and the second

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data with the unit taking into consideration the transmission parameters. [emphasis added by Applicants]

Similarly, Applicants' independent claim 8 recites, among other limitations:

a transmission unit of a transport layer receiving from said processor the first data and the second data and the transmission parameters of the selected combined quality of service class, and transmitting the first data and the second data taking into consideration the transmission parameters. [emphasis added by Applicants]

As such, it is clear that, based on the combined quality of service class assigned to a grouping of first data and second data, the first and second data are transmitted together by the transport layer.

The FORSLÖW patent fails to teach or suggest, among other limitations of Applicants' claims, assigning one of a plurality of first quality of service classes to data of a first type, assigning one of a plurality of second quality of service classes to data of a second type, and assigning the data of the first and second types a combined quality of service class, based on the first and second quality of service classes assigned to the first and second data of the first and second types.

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More particularly, **FORSLÖW** neither teaches, nor suggests, assigning one of a plurality of quality of service classes to data of a first type (i.e., for example, "real time services like voice and video" of col. 9 of **FORSLÖW**, line 49). Nor does **FORSLÖW** teach or suggest, among other limitations of Applicants' claims assigning one of a plurality of quality of service classes to data of a second type (i.e., for example, "Traditional Internet data applications" of col. 9 of **FORSLÖW**, lines 49 - 50). Rather, **FORSLÖW** discloses merely requesting quality of service parameters for one or more individual application flows, for example, peak bit rate, bucket depth (a maximum buffering requirement for the flow), and per packet delay or peak throughput, burst size, and delay class. See col. 10 of **FORSLÖW**, lines 2 - 18. Thus, **FORSLÖW** does not teach or suggest, among other limitations of Applicants' claims a **plurality of first quality of service classes for a first data type or a plurality of second quality of service classes for a second data type**, as required by Applicants' claims.

Further, **FORSLÖW** not only fails to teach or suggest Applicants' claimed combined quality of service class, but, rather, **FORSLÖW** clearly teaches away from assigning a **combined** quality of service class, formed from the first quality of service class for a first type of data and the second quality

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of service class for a second type of data, for the transmission of first and second types of data. The object of **FORSLÖW** is to determine the requested quality of service for a specific application flow and to then determine whether a **circuit-switched** or **packet-switched** bearer should be chosen to carry the data. **FORSLÖW** clearly teaches that realtime data is suited to a different bearer, than non-realtime data. For example, col. 10 of **FORSLÖW**, lines 14 - 18, state:

As a result, each application stream receives optimal service in terms of the quality of service parameters **as well as the type of transfer mechanism best suited to carry the type of information to be transferred** in that specific application flow. [emphasis added by Applicants]

That **FORSLÖW** transfers different **types of information** by **different transfer mechanisms**, can be further understood from col. 9 of **FORSLÖW**, lines 38 - 53, which state:

As previously mentioned, one of the important objectives of the present invention is to provide quality of service based, wireless Internet access to support multiple services including voice, data, and multimedia at the same time. An Internet application might request a quality of service specifying one or more of the following factors: perceived transport link layer delay, jitter, bandwidth, and/or reliability. **One or more of these quality of service factors, depending upon their values, may be better provided by a specific type of bearer. A circuit-switched bearer is better suited to carrying real time services like voice and video that require low delay and/or small jitter. Traditional Internet data applications such as WWW, file transfer, e-mail, and telnet are better served by packet-switched bearers which are better suited to fast channel access and bursty data transfer.** [emphasis added by Applicants]

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FORSLÖW teaches that each different type of information (i.e., realtime vs. non-realtime) is optimized by transmitting that type of information by a particularly chosen transfer mechanism (i.e., circuit-switched bearer vs. packet-switched bearer). Thus, an object of **FORSLÖW** is to select the transfer mechanism that optimizes each type of data. Thus, **FORSLÖW** is not transmitting, together, data of the first type and the second type, as is being done in Applicants' claimed invention. This would, in **FORSLÖW's** teachings, fail to optimize the transfer.

As data of two different types are not being transmitted using the same quality of service parameters or mechanism in **FORSLÖW**, **FORSLÖW** is not assigning data of a first type and data of a second type, a combined quality of service class allocated transmission parameters specifying a transmission of the first data and the second data, as required by Applicants' claims. **FORSLÖW** doesn't even teach or suggest providing for the data of the first and second types, a combined quality of service class, based on a quality of service class for the first data and a quality of service class for the second data, as required by Applicants' claims.

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As such, Applicants' claims are believed to be patentable over the **FORSLÖW** reference.

It is accordingly believed that none of the references, whether taken alone or in any combination, teach or suggest the features of claims 1 and 8. Claims 1 and 8 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claims 1 or 8.

In view of the foregoing, reconsideration and allowance of claims 1 - 13 are solicited.

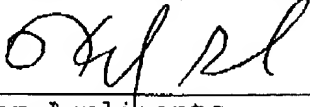
In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemer LLP, No. 12-1099.

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Respectfully submitted,



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